

**REMARKS**

Claims 1, 3-4, 6, 8-10, 12, 14-15, 17-18, 20, 22-24 and 26 are pending. Claims 1, 3-4, 6, 8, 15, 17-18, 20 and 22 are amended, and claims 2, 7, 16 and 21 are canceled with this response. Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

**I. CLAIM AMENDMENTS AFTER FINAL**

Claims 1 and 15 have been amended to fix a typographical error, wherein the phrase "70% or less" was removed from both claims. Such error did not exist in the claims on appeal, wherein the appendix of claims does not include such phrase. Therefore it is believed that removal of the typographical error reduces the number of outstanding issues, and thus entry thereof is believed to be proper.

In addition, claims 1 and 15 have been amended to incorporate limitations therein from previously pending depending claims 7 and 21, respectively. Therefore entry of such amendments does not require a new search, and further reduces the number of outstanding issues. In addition, the amendments to depending claims was made to address appropriate claim renumbering based on the amendments to claims 1 and 15, and corresponding cancellations of depending claims 2 and 7, and claims 16 and 21, respectively. In the Advisory Action, such claim amendments were not entered. As stated above, it is respectfully submitted that entry of such amendments at this stage is proper, and thus entry of the above amendments is respectfully requested.

**II. REJECTION OF CLAIMS 1-4, 7-10, 12, 15-18, 21-24 AND 26 UNDER 35 U.S.C. § 102(e)**

Claims 1-4, 7-10, 12, 15-18, 21-24 and 26 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2005/0145908 (Moise et al.). Withdrawal of the rejection is respectfully requested for at least the following reasons.

Claims 1 and 15 each recite a ferroelectric material comprising PZT, wherein the PZT material comprises a Zr content of about 0-52%. Moise et al. do not teach this

feature. While the Office Action asserts that paragraphs [0028] and [0045] teach this feature, review of the cited art shows no such teaching. Rather, the cited reference indicates that the ferroelectric material may be  $\text{Pb}(\text{Zr}, \text{Ti})\text{O}_3$ . As discussed with the Examiner in a telephone interview on July 12, 2006, it was discussed that the above nomenclature does not indicate the amount of zirconium with respect to oxygen or lead.

Rather, this nomenclature means that regarding the zirconium and titanium,  $\text{Zr} + \text{Ti}$  in the PZT film equals 1. Therefore the above characterization covers a range of  $\text{Zr}$  from 0% to 100%, while  $\text{Ti}$  ranges from 100% to 0%, respectively. However, the reference provides no specific examples of particular values falling within the range and therefore does not constitute sufficient specificity to constitute anticipation. MPEP § 2131.04. Therefore claims 1 and 15 are not anticipated by the reference.

In addition, it is respectfully submitted that the claims are non-obvious over the cited art. Not only is the recited range not specifically taught in the reference, but the range of zirconium being between 0-52% provides a structural advantage, wherein such range results in a tetragonal cubic structure for the PZT. Zirconium quantities greater than 52% result in a rhombohedral structure, wherein the elongation would then run from corner to corner in the cubic structure, which would adversely impact the polarization performance of the material. Therefore the cited range is non-obvious over the cited art.

### III. CONCLUSION

For at least the above reasons, the claims currently under consideration are believed to be in condition for allowance.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should any fees be due as a result of the filing of this response, the Commissioner is hereby authorized to charge the Deposit Account Number 20-0668, TIP346US.

Respectfully submitted,  
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By



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CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop AF, Assistant Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: July 12, 2006



Christine Gillroy